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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,599	02/06/2002	Norio Kashiwa	ZU-408	5429

21839 7590 09/11/2003

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EXAMINER
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LEE, RIP A

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/066,599

Applicant(s)

KASHIWA ET AL

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 7-11 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,10 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-5 and 7-11 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

This office action follows a response filed on July 2, 2003 (Paper No. 8). Applicants have amended claims 7-11. Claim 6 was canceled. Claims 1-3 and 7-9 remain active.

#### ***Election/Restrictions***

1. Claims 4, 5, 10, and 11 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention. Election was made *without* traverse in Paper No. 8.

*Examiner's note:* In the office action of June 12, 2003, claims 10 and 11 were inadvertently grouped together with claims 1-3 and 7-9 as a single invention. This is in error. Claims 10 and 11 have been withdrawn herein because they depend from independent claims 4 and 5.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1, 2, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,278,272 to Lai *et al.*

Lai *et al.* teaches ethylene polymers having a density of from about 0.85 to about 0.97 g/cm<sup>3</sup>, a melt flow ratio,  $I_{10}/I_2$  of from about 7 to about 20, and a molecular weight distribution,  $M_w/M_n$  from about 1.5 to about 2.5 (col. 3, lines 4-14). These values lie squarely within the ranges set forth in present claims 1 and 2. Fabricated articles made from the inventive olefin polymers may be prepared using all of the conventional processing techniques such as sheet extrusion or injection molding (col. 15, lines 21-25 and 40-44). Therefore, the prior art discloses fully the subject matter of present claims.

6. Claims 3 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 6,300,433 to Rodriguez *et al.*

The prior art of Rodriguez *et al.* teaches polymerization of ethylene polymers using catalysts comprised of hafnocene complexes and boron containing activator (see abstract and general discussion in text). Ethylene polymers have a density of 0.850-0.930 g/mL (claim 1). Tables 1 and 2 provide insight into the molecular weight distributions generally exhibited by the polymers of the invention, and it can be seen that value of  $M_w/M_n$  lie in the range of about 2.22 to about 9.39. Note that ethylene polymers exhibit density and  $M_w/M_n$  whose values lie squarely within the ranges set forth in present claim 3. However, the reference is silent with respect to the ratio  $\omega_2/\omega_1$ . In view of the fact that the polymers described in Rodriguez *et al.* are prepared by

catalysts comprised of essentially the same components as those described in the instant application, a reasonable basis exists to believe that the prior art polymers exhibit the currently claimed property,  $\omega_2/\omega_1$ . Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. *In re Fitzgerald*, 619 F.2d. 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112-2112.02.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez *et al.*

Rodriguez *et al.* does not indicate that polymers of the invention are made into molded articles. However, it would have been obvious to one having ordinary skill in the art to make molded articles from ethylene polymers in order for the polymer to have utility. One having skill in the art would have found this obvious because the background art section of the patent provides a general discourse on uses of thermoplastics (col. 1, lines 26-30):

“Uses of plastomers include thermoplastic olefins, films, wire and cable coatings, polymer modification, injection molding, foams, footwear, sheeting...”

Therefore, it is deemed that the skilled artisan would have found it obvious to make materials by injection molding since it is described in the reference.

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The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure. The following references have been cited to show the state of the art with respect to ethylene polymers.

U.S. Patent No. 6,333,387 to Takahashi *et al.*

U.S. Patent No. 5,874,513 to Watanabe *et al.*

U.S. Patent No. 5,783,638 to Lai *et al.*

U.S. Patent No. 5,674,945 to Takahashi *et al.*

U.S. Patent No. 5,519,091 to Tsutsui *et al.*

U.S. Patent No. 5,218,071 to Tsutsui *et al.*

U.S. 2002/0107343 to Kashiwa *et al.*

EP 1 231 229 to Kashiwa *et al.*

EP 0 955 321 to Tsutsui *et al.*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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August 27, 2003



DAVID W. WU  
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